

WHAT IS CLAIMS IS:

1. A ceramic roller which comprises a shaft, a cylindrical layer, and a surface coating layer arranged in that order from the central side thereof, at least a part of the cylindrical layer being made of a ceramic with a low bulk density of 0.2 to 1.5 g/cm<sup>3</sup>, the ceramic being formed from 100 parts by weight of an inorganic binder and 0 to 500 parts by weight of a heat-resistant inorganic material.

2. A ceramic roller with a low heat capacity according to claim 1, characterized in that the cylindrical layer is formed of a ceramic with a low bulk density having a heat capacity per unit volume of  $1 \times 10^{-4}$  to  $1.5 \times 10^{-3}$  KJ/(K · cm<sup>3</sup>).

3. A ceramic roller according to claim 1, characterized in that the thermal conductivity of the cylindrical layer is in the range of 0.03 to 1.0 W/(m · K).

4. A ceramic roller according to 1, 2 or 3, characterized in that grooves or convexities and concavities are formed on the peripheral surface of the cylindrical layer.

5. A ceramic roller according to 1, 2 or 3, characterized in that the cylindrical layer is provided with a hollow shaft hole into which the shafts are disposed, the top-end of each shaft protruding externally from the cylindrical layer, the other end being fixed in one of both ends of the shaft hole, and the part of the shaft hole which exists between both the shafts constituting a hollow portion.

6. A ceramic roller according to any one of the claims 1 to 5, characterized in that the surface coating layer is made of a fluororesin.

7. A ceramic roller according to claim 6, characterized in that the fluororesin is a tube of PFA resin.

8. A ceramic roller according to any one of the claims 1 to 5, characterized in that the surface coating layer may be coated with a glass layer.

9. A ceramic roller according to any one of the claims 1 to 8, characterized in that the ceramic roller is used in a fixing device.

10. A ceramic roller according to any one of the claims 1 to 8, characterized in that the ceramic roller is used in a non-pressing part of the fixing device.

11. A ceramic roller which comprises a cylindrical layer with a peripheral surface formed on the peripheral surface of a shaft excluding both the ends of the shaft, the peripheral surface of the cylindrical layer having grooves or concavities and convexities formed thereon, and a surface coating layer.

12. A ceramic roller which comprises a cylindrical layer formed in a cylindrical shape having a hollow shaft-hole, a pair of shafts, one of which has the top-end thereof protruding externally from the cylindrical layer and has the other end fixed in the cylindrical layer, the shaft hole forming a hollow portion between the ends of both the shafts, and a surface layer formed on the outer peripheral surface of the cylindrical layer.